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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,844

05/16/2006

Volker Schadler

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06/24/2009

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EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT

PAPER NUMBER

1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,844	<b>Applicant(s)</b> SCHADLER ET AL.	
	<b>Examiner</b> Irina S. Zemel	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5-16-2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 and 13-20 are indefinite for claiming the product which is “obtainable” by the recited claim steps.

The claim is indefinite if undue experimentation is involved to determine boundaries of protection. This rationale is applicable to polymer “obtainable” by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer product produced. One who made or used a polymer product made by a process other than the process cited in the claim would have to produce a polymer product using all possible parameters within the scope of the claim, and then extensively analyze each product to determine if this polymer was obtainable by a process within the scope of the claimed process. See ***Ex parte Tanksley***, 26 USPQ 2d 1389.

The claims recite “polycondensation-reactive resin”. It is not clear what kind of resins are encompassed by “polycondensation-reactive, i.e., resins obtained via reactive polycondensation, or polycondensation resins having reactive groups or resins that can be further reactively polycondense to produce another resins.

In claim 8, there is not enough antecedent basis for “the solution” claimed in step c., as step a. does not recite a solution.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 13-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/26871 to BASF., (hereinafter BASF ‘871) or US Patent us Petent 4,540,717 to Mahnke et al., (hereinafter “Mahnke”).

US Patent 6,800,666 to Hahnle et al., (“Hahnle”) is used an the English translation of the BASF ‘871. All the references are made with respect to the US Hahnle ‘666 reference.

The BASF reference discloses a foam obtained by a process of curing emulsion which emulsion comprises melamine formaldehyde resin, hydrocarbon, such as

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pentane (a hydrocarbon of boiling point of about 36 C), a surfactant, a curing agent, an acid as a catalyst; with subsequent drying the emulsion. See, for example, comparative example 2. The density of the resulting foam is 10 g/L. Among suitable emulsifiers (amphiphiles), etoxylated fatty alcohols similar to the ones used in the illustrative examples of the instant specification are expressly disclosed.

The reference does not disclose the cell size of the resulting foams, however, in view of the fact that the disclose process uses all substantially identical components as the examples of the instant specification, and discloses substantially similar process to obtain the foams as claimed in the instant invention (providing two phase emulsions and curing it by heating it above the boiling point of the hydrocarbon with subsequent drying). It is reasonable believed that the claimed foams exhibit the claims pore size . The burden is shifted to the applicants to provide factual evidence to the contrary.

The Mahnke reference discloses a foam obtained by a process of curing emulsion which emulsion comprises melamine formaldehyde resin, hydrocarbon, such as pentane (a hydrocarbon of boiling point of about 36 C), a surfactant, a curing agent, an acid as a catalyst; with subsequent drying the emulsion. See, for example, all illustrative examples. The density of the resulting foam ranges from 12 to 40 as per table 1 10 g/L. Among suitable emulsifiers (amphiphiles), etoxylated fatty alcohols similar to the ones used in the illustrative examples of the instant specification are expressly disclosed in column 6, lines 35-39.

The reference does not disclose the cell size of the resulting foams, however, in view of the fact that the disclose process uses all substantially identical components as

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the examples of the instant specification, and discloses substantially similar process to obtain the foams as claimed in the instant invention (providing two phase emulsions and curing it by heating it above the boiling point of the hydrocarbon with subsequent drying). It is reasonable believed that the claimed foams exhibit the claims pore size . The burden is shifted to the applicants to provide factual evidence to the contrary.

Claims 1-3, 5-7 and 13-15, 16, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. or US Patent 4,666,948 to Woerner et al, (hereinafter "Woerner").

The Woerner reference discloses a foam obtained by a process of curing emulsion which emulsion comprises melamine formaldehyde resin, hydrocarbon, such as pentane (a hydrocarbon of boiling point of about 36 C), a surfactant, a curing agent, an acid as a catalyst; with subsequent drying the emulsion. See, for example, example 1. The density of the resulting foam is 12 g/L. Among suitable emulsifiers (amphiphiles), etoxylated fatty alcohols similar to the ones used in the illustrative examples of the instant specification are expressly disclosed.

The reference does not disclose the cell size of the resulting foams, however, in view of the fact that the disclose process uses all substantially identical components as the examples of the instant specification, and discloses substantially similar process to obtain the foams as claimed in the instant invention (providing two phase emulsions and curing it by heating it above the boiling point of the hydrocarbon with subsequent

drying). It is reasonable believed that the claimed foams exhibit the claims pore size .  
The burden is shifted to the applicants to provide factual evidence to the contrary.

It is further noted that should the foams disclosed is any of the above cited reference be different from the claimed foams, the question arises as to whether essential elements of process steps are omitted from the claims as the references disclose ALL of the claimed steps and components as claimed in the instant "product-by-process" claims.

### ***Claim Rejections - 35 USC § 103***

Claims 8-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,666,948 to Woerner et al, (hereinafter "Woerner").

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of BASF '871, or US Patent 4,666,948 to Woerner et al, (hereinafter "Woerner") or US Patent us Petent 4,540,717 to Mahnke et al., (hereinafter "Mahnke").

The disclosures of all three reference is discussed above. As discussed abovem each of the reference discloses a process of producing foams, the processes comprise the steps of providing a polycondensation-reactive resin, preparing a microemulsion comprising an oil phase, an amphiphile and an aqueous solution of a curing agent and/or curing catalyst for the polycondensation- reactive resin, and drying to obtain the structure of the cured microemulsion.

The only difference between the claimed process and the processes disclosed in each of the three references is that the disclosed processes dos not form a separate

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emulsion comprising an oil phase, an amphiphile and an aqueous solution of a curing agent and/or curing catalyst for the polycondensation- reactive resin, prior to combining the solution of the polycondensation-reactive resin from stage a) with the microemulsion from stage b), but rather adds the oil phase (a hydrocarbon with boiling point below 120, such as heptane or pentane) at a later stage and further homogenizes the emulsion after the addition of hydrocarbon. This, however, is merely a change in sequence of adding components to the emulsion prior to any reaction taking place, and, therefore, would have been *prima facie* obvious from the disclosed processes as long held by the courts absent showing of unexpected results. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results); *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is *prima facie* obvious.).

The invention as claimed, thus, would have been obvious from the disclosure or each of the three cited reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Irina S. Zemel  
Primary Examiner  
Art Unit 1796

ISZ